

PATENT COOPERATION TREATY

PCT

10/500985

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 07 JAN 2004

WIPO PCT

Applicant's or agent's file reference P12169-dbo	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 01/15315	International filing date (day/month/year) 27.12.2001	Priority date (day/month/year) 27.12.2001
International Patent Classification (IPC) or both national classification and IPC H04Q7/30		
Applicant TELEFONAKTIEBOLAGET LM ERICSSON (PUBL) et al		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

- This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV ☐ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

Date of submission of the demand 08.07.2003	Date of completion of this report 05.01.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Frey, R Telephone No. +49 89 2399-7522 <div style="text-align: right;">  </div>

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 01/15315**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-21 as originally filed

Claims, Numbers

1-17 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-17
Inventive step (IS)	Yes: Claims	1-17
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP01/15315

Re Item I

Basis of the report

1. Reference is made to the following documents:

D1: WO 01 13658 A (ERICSSON TELEFON AB L M) 22 February 2001 (2001-02-22) cited in the application

D2: WO 01 91489 A (HODGES PHIL ;NOGUERA JUAN (AU); HELLWIG KARL (DE); ERICSSON TELEFO) 29 November 2001 (2001-11-29)

2. The subject-matter of independent **claim 1** does not involve an inventive step (Article 33(3) PCT).

Document **D1** discloses (see in particular page 4, line 21- page 9, line 6; figs. 3,5), as acknowledged by the applicant in his description, the features of the preamble of claim 1, in particular

a TFO transcoding unit (see in particular 124 in Fig. 4);

switching means for switching data through the transcoding unit (see in particular page 5, lines 15- 19);

a transcoder controller

adapted to insert the transcoding unit into a connection between a mobile terminal and a switching network (see in particular Fig. 3) and

further adapted to instruct the transcoding unit to operate in TFO mode (see in particular page 6, lines 30- 33).

The subject-matter of claim 1 differs from that disclosed in D1 merely in that the transcoder controller is adapted to eliminate the transcoding unit from the connection.

Thereby, the use of hardware resources, namely the use of the transcoder unit, shall be restricted to situations where they are really needed.

In his search for a solution to the above mentioned problem, a person skilled in the art would come across document **D2** (see in particular page 14, line 16- page 17, line 2) which discloses a method for transmission in a mobile communications network wherein transcoders are only inserted between network nodes, e.g.

between a mobile switching center and a radio network controller, when a supplementary service is to be provided (see in particular page 14, lines 18- 21). Of course insertion is most needed in case of incompatible parameter sets, otherwise a connection without transcoders is preferable (see in particular page 16, lines 2- 4) since this reduces the use of hardware resources.

The person skilled in the art would thus be taught that transcoders can be inserted on demand into an ongoing connection. Even though this is not explicitly stated in D2, he would immediately notice that if transcoders can be inserted on demand they can equally be eliminated on demand.

It would therefore, be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply the feature of inserting and eliminating a transcoder on demand with corresponding effect to a system according to document D1, thereby arriving at a transcoding apparatus according to claim 1.

The subject-matter of claim 1 does therefore not involve an inventive step (Article 33(3) PCT).

3. The subject-matter of independent **claim 14** does not involve an inventive step (Article 33(3) PCT).

As acknowledged in the description, document D1 discloses the features of the preamble of that claim.

The differentiating feature is a controller adapted to eliminate a TCME during a connection.

TCME unit and transcoding unit are very similar, therefore a person skilled in the art would for the reasons set out above with respect to claim 1 arrive at the subject-matter of claim 14 without the exercise of inventive skill: since he would eliminate the transcoding unit, he would equally eliminate the TCME unit from an ongoing connection.

The subject-matter of claim 14 does therefore not involve an inventive step (Article

33(3) PCT).

4. Dependent claims **2 to 13** and **15 to 17** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows.

Claims **2 to 6, 15 and 16** are directed to inserting/eliminating a transcoder unit/TCME unit depending on whether supplementary services are to be provided. As discussed above with respect to claim 1 such subject-matter does not involve an inventive step.

The decision to switch based on locally available information (claims **7** and **17**), e.g. in-band information, the MSC retaining control of the call is e.g. known from typical TFO-TRAUs. This of course includes supervision of the inputs (claim **8**) and eventual transmission of supervision reports from the units performing the supervision (claim **9**). The information may originate from the MSC, firstly because it retains control of the call and secondly because supplementary service are originated there (claim **10**). The use of the port address (claim **11**) is an obvious possibility.

Simply inserting during communication a protocol conversion unit or link supervision function (claims **12** and **13**) does not in itself solve any further problem on the base of which an inventive step could be acknowledged.